

contacts of which one contact is in the first connector and the other contact is in the second connector.

cont.
A2 4. (amended) The system as defined in claim 3, wherein said each pair of contacts includes one contact in an upper passageway in one connector, and the other contact in a lower passageway in the other connector.

8. (amended) A connector which is generally of a reversed type compared to a standard connector including a standard main body having a standard key in a standard central slot for receiving a module therein, said standard key being spaced from a central line of said standard main body with a first distance, a first and a second standard side arms respectively extending rearward from two opposite ends of the standard main body, comprising:

A3 a housing including a main body having substantially a same length with regard to the standard main body of the standard connector and defining upper row passageways and lower row passageways for receiving a plurality of upper contacts and lower contacts therein, respectively, and a first and a second side arms respectively extending rearward from two opposite ends of the main body;

said housing defining a central slot for receiving a module therein;

said first connector including a first main body with first contacts therein, and a first central slot for receiving said first module therein, a pair of first side arms extending rearward from two opposite ends of the first main body; and

said second connector including a second main body with second contacts therein, and a second central slot for receiving said second module therein, a pair of second side arms extending rearward from two opposite ends of the second main body; wherein

said first connector and said second connector are oppositely aligned with and spaced from each other in a front-to-end direction [in a head-to-head state] , while commonly mounted on a mother board wherein the pair of first side arms and the pair of second side arms extend in opposite directions with each other.

cont.

A2 2. (amended) The system as defined in claim 1, wherein the first module and the second module are substantially identical to each other each defining a first surface and an opposite second surface, and the first module is adapted to be inserted into the first connector in a [normal] manner with the first surface thereof facing upward and the second module is adapted to be inserted into the second connector in an upside-down manner with the second surface thereof facing upward.

3. (amended) The system as defined in claim 1, wherein a plurality of traces are provided to respectively connect pairs of

17

a

cont. A3 a reverse key positioned in said central slot [when said key is on an opposite side with regard to a center line of the main body in comparison with another key of the standard connector] and spaced from a central slot of said main body with a second distance wherein the standard key is located close to the first standard side arm of the standard connector while the reverse key is located close to the second side arm of the connector, and the first distance is substantially equal to the second distance whereby the module, which is adapted to be received within the standard connector [in a normal manner] , can be received within the central slot of the housing in an upside-down manner.

10. (amended) An electrical connector assembly, comprising:

a first connector including a housing having a main body defining first upper row passageways and first lower row passageways for receiving a plurality of first upper contacts and first lower contacts, respectively;

A4 a module adapted to be received within a second connector which is a standard connector having second upper row passageways and second lower row passageways for receiving a plurality of second upper contacts and second lower contacts so as to engage with corresponding pads printed on an upper surface and a back surface of the module;

said module being received within the housing in an upside-down status wherein each pad, which is printed on the

upper [/back] surface of the module and positioned on a right [/left] side thereof and is adapted to engage with one second upper [/lower] contact on a right [/left] side of the second connector, is substantially engaged with one first lower [/upper] contact on a left [/right] side of the first connector; in contrast, each pad, which is printed on the back surface of the module and positioned on a left side thereof and is adapted to engage with one second lower contact on the left side of the second connector, is substantially engaged with one first upper contact on the right side of the first connector.

cont. 11. A method for upside-down installing a module into a connector wherein said module has a notch positioned on a right [/left] side with a first distance from a center line thereof when the module has an upper surface thereof face up and a plurality of pads on both [supper] upper and back surfaces of the module, the steps comprising:

providing said connector with a key positioned on a left [/right] side with a second distance from another center line thereof wherein the first distance is equal to the second distance; and

providing said connector with first set of upper contacts and a second set of lower contacts divided by a central slot which is adapted to receive therein the module wherein the module is installed within the connector with a back surface

cont
A4 thereof facing up, and the upper contacts engage with the pads on the back surface of the module and the lower contacts engage with the pads on the upper surface of the module.

13. (amended) An arrangement for electrically interconnecting a first connector and a second connector wherein the first connector is adapted to receive a first module in a [normal] a first type installation condition and the second connector is adapted to receive said module in [an upside-down] a second type installation condition which is of an upside-down manner relative to the first installation condition, comprising:

said first connector including a first housing having a [first] first main body defining a plurality of upper contacts and lower contacts;

A5 said second connector including a second housing having a second main body defining a plurality of upper contacts and lower contacts;

said module comprising a plurality of pads printed on upper and back surfaces thereof; wherein

an Nth pad, counted from a right side, on the upper [/back] surface of said module is adapted to engage with a corresponding Nth upper [/lower] contact counted from a right side arm of the first connector, but is adapted to engage with a corresponding Nth lower [/upper] contact counted from a left side arm of the second connector; in contrast, another Nth pad,

counted from a right side, on the back surface of said module is adapted to engage with a corresponding Nth lower contact counted from a right side arm of the first connector, but is adapted to engage with a corresponding Nth upper contact counted from a left side arm of the second connector.

14. (amended) The arrangement as defined in claim 13, wherein a trace is provided to connect the Nth upper [/lower] contact of the first connector and the Nth lower [/upper] contact of the second connector; in contrast, another trace is provided to connector the Nth lower contact of the first connector and the Nth upper contact of the second connector.

15. (amended) A connector assembly comprising:

a first connector including a first housing having a first main body defining first upper row passageways and lower row passageways for receiving a plurality of first upper contacts and lower contacts therein, respectively;

a module including a plurality of pads printed on both upper and back surfaces thereof wherein said module is adapted to be received within another complementary connector which includes a plurality of second upper contacts and lower contacts whereby an Nth [pads] pad on the upper [/back] surface counted from a right side can be engaged with an Nth second upper [/lower]

conf.
AS
[contacts] contact counted from a right side arm of the second connector; and wherein said Nth pad is adapted to be engaged with an Nth first lower [/upper] contact counted from a left side arm of the first connector when said module is upside-down installed within the first connector.

Please add claims 18, 19 as follows:

-- 18. The arrangement as defined in claim 14, wherein the trace is disposed on a board on which both the first connector and the second connector are mounted.--

At
-- 19. The connector assembly as defined in claim 15, wherein another Nth pad on the back surface counted from a right side can be engaged with another Nth second lower contact counted from a right side arm of the second connector; and wherein said another Nth pad is adapted to be engaged with an Nth first upper contact counted from a left side arm of the first connector.--

REMARKS

Applicant originally submitted claims 1-17, and the Examiner rejected claims 1-17. Applicant has amended claims 1-4, 8, 10-11, and 13-15, and further added claims 18-19. Accordingly, claim 1-19 are pending in this application.